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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,671	11/09/2001	Masayoshi Nakamura	2001_1660A	5826

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EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 10/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,671

Applicant(s)

NAKAMURA ET AL.

Examiner

Aristotelis M. Psitos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08).
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/8/05 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 3-10 are written in functional resultant language. Nevertheless, as recited in claims 3 and 4 there is NO source (positively recited) that yields any "range signal" as required by these claims. The dependent claims fail to clarify the above and fall accordingly.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katoh further considered with Ishibashi et al

The following analysis is made:

Claim 1

A clock extracting device of a disc reproducing apparatus, comprising:

Katoh/Leononowich/Ishibashi

abstract Katoh

inherent see col 1 lines 5-15

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an information read-out means for reading
information signals from a disklike
information recording medium;

a voltage control oscillator;
a phase comparator for comparing
a phase of the information signals read by the
information read-out means and a phase of an
output of the voltage control oscillator;

element 11 in Katoh/

a frequency comparator for comparing
a frequency of the information signals read
by the information read-out means and
a frequency of the output of the voltage control oscillator;

element 6 in Katoh

a speed sensor for detecting the frequency
of the output of the voltage control
oscillator at a reference clock so as to
output a speed signal;

see Ishibashi et al/col.

12 lines 40 plus

a gain command unit for designating
a loop gain of a clock extracting circuit in
accordance with the speed signal outputted
from the speed sensor;

see figure 8 and its
description starting at
col. 13, line 58.

a charge pump which discharges
or draws electric current in accordance with

function of charge pump

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outputs of the phase comparator and the frequency comparator and changes over an output current value in accordance with a gain command of the gain command unit; and

a series circuit of a resistor and a capacitor, whose one end is connected to an output of the charge pump and the other end of which is grounded or is connected to a reference voltage;

elements in fig. 8, 155.

wherein an output voltage between the opposite ends of the series circuit acts as a control voltage for the voltage control oscillator and the gain command unit issues the gain command such that the loop gain of the clock extracting circuit secures a desired operating point in accordance with a read rate of the information signals; wherein

yes

yes

Katoh is relied upon as presented in the submitted search report, for teaching in this environment the overall system relying upon pll and phase and frequency comparators.

Ishibashi et al discloses the ability of having an charge pump element as well as altering the gain of the pll predicated upon the detected linear velocity – see col. 13 lines 58 plus in describing figure 8.

It would have been obvious to modify the base system of Katoh with the above teachings from Ishibashi et al, motivation is to use existing circuitry and appropriately control the gain as a function of the linear speed of the system and hence appropriately provide for a corrected output signal.

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With respect to claim 11, this independent claim differs from claim 1 only in that instead of an information read out means for reading the information from the disklike medium, "an optical pickup operable to read" is recited. As noted in the base reference to Katoh in lines 5-15 since the invention relates to an optical disc device the examiner concludes that the claimed optical pickup operable to read the information is inherently present.

Response to Arguments

Applicant's arguments filed 8/8/05 have been fully considered but they are not persuasive. Applicants' arguments focus upon one embodiment of the Ishibashi et al system. The examiner relies upon the other embodiment that supports his position – also see the Ishibashi et al document 6611480 – abstract and col. 16 lines 1-5. A reference must be evaluated for all that it teaches – **In re Bode et al 193 USPQ 12.**

The Katoh reference is not relied upon for what it lacks.

With respect to Ishibashi et al, applicants' attention is drawn to the above noted figure and operation thereof. As interpreted, since the gain is a function of the speed detection, the gain is varied as recited.

2. Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable the art relied upon as stated in paragraph 1 above and all further considered with Okada et al.

Katoh and Ishibashi et al are relied upon for the reasons stated above.

Claim 2 differs from claim 1 in that it recites a digital filter and NCO. As noted in Okada et al, Okada et al teach these elements – see figure 22.

It would have been obvious to modify the base system of Katoh/Ishibashi et al with the above additional teachings from Okada et al; motivation is to provide a digitized pll and its inherent improvement.

With respect to claim 12, it differs from claim 2 in that it recites "an optical pickup" as opposed to claim 2 recitation of "an information read out means". Since the base reference is drawn to an optical system, the examiner concludes such an element is inherently present.

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Allowable Subject Matter

3. Claims 3-10 and 13-20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims as well as correct for the above rejection thereto.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aristotelis M Psitos
Primary Examiner
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A handwritten signature in black ink, appearing to be 'APsitos', written over a horizontal line.

amp